



COVID-19: FROM THE FRONT LINES

Mark Pochapin, MD
Vice Chair, Clinical Affairs, Department of Medicine
Director, Division of Gastroenterology and Hepatology
Sholtz-Leeds Professor of Gastroenterology
NYU Langone Health



Disclosures

- Micro-tech Guage Endoscopic Measurement Device (Napoleon): Intellectual Property
- AccumarkDx: Advisory board

A Tsunami arrived in New York City

- COVID19: like a Tsunami hitting New York City
- Required an “All hands on deck” approach
- First: volunteers, then quickly reassignment:
 - “Choose what you are comfortable with”
- 3/30/20: The COVID Army is born
 - COVIDArmy@NYULangone.Org

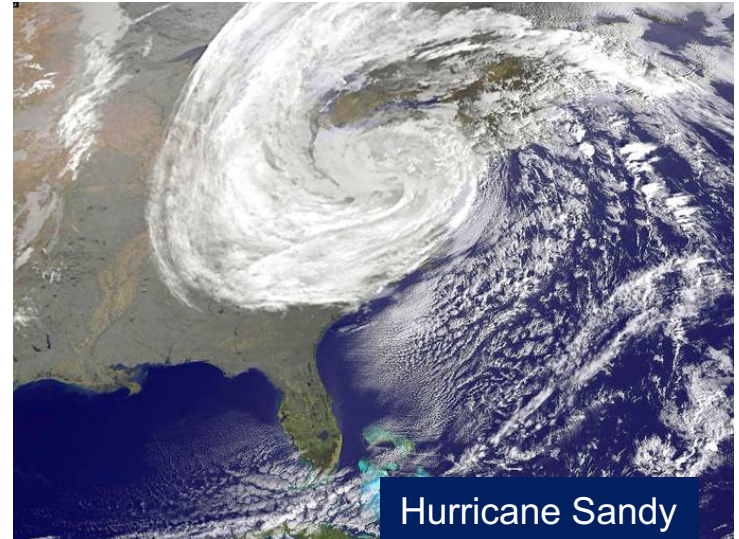


From Movie, “The Day After Tomorrow”

9/11 MEMORIAL & MUSEUM

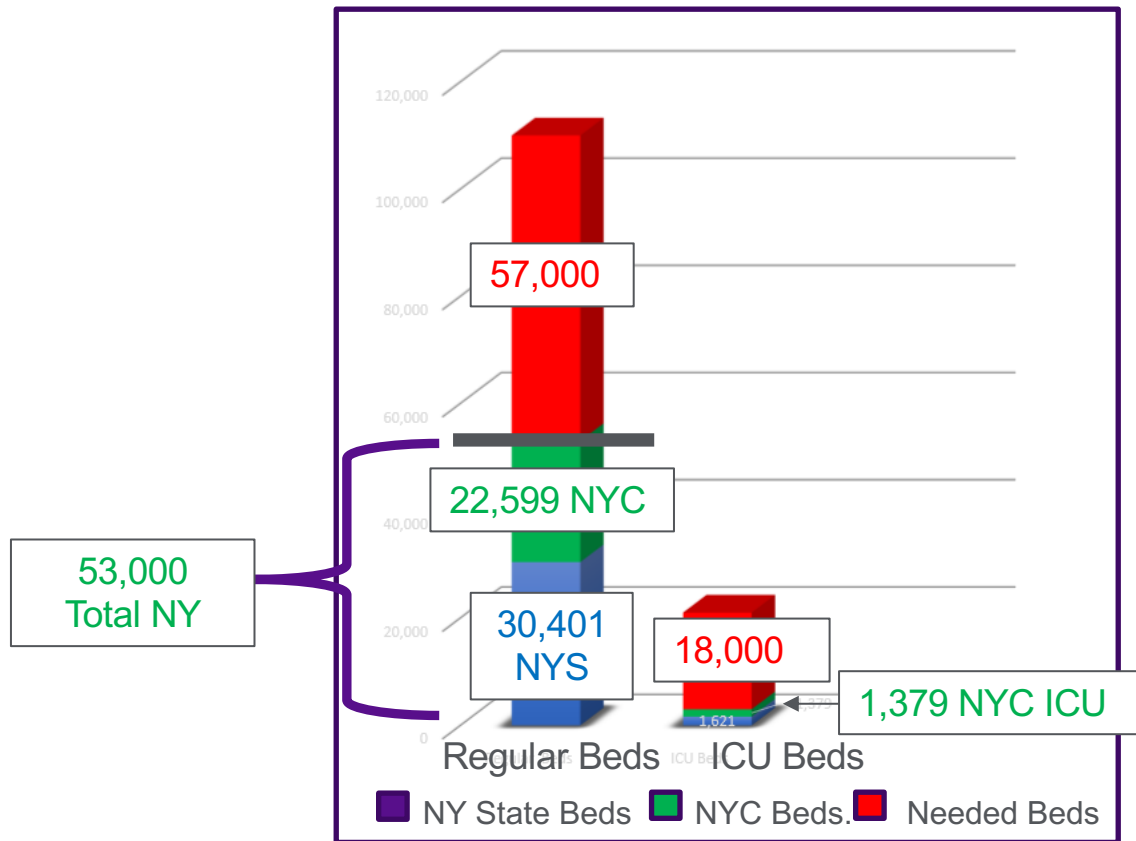


<https://www.911memorial.org/visit/memorial/tribute-light>



Projected Needs for Hospital and ICU Beds in New York State - March 2020

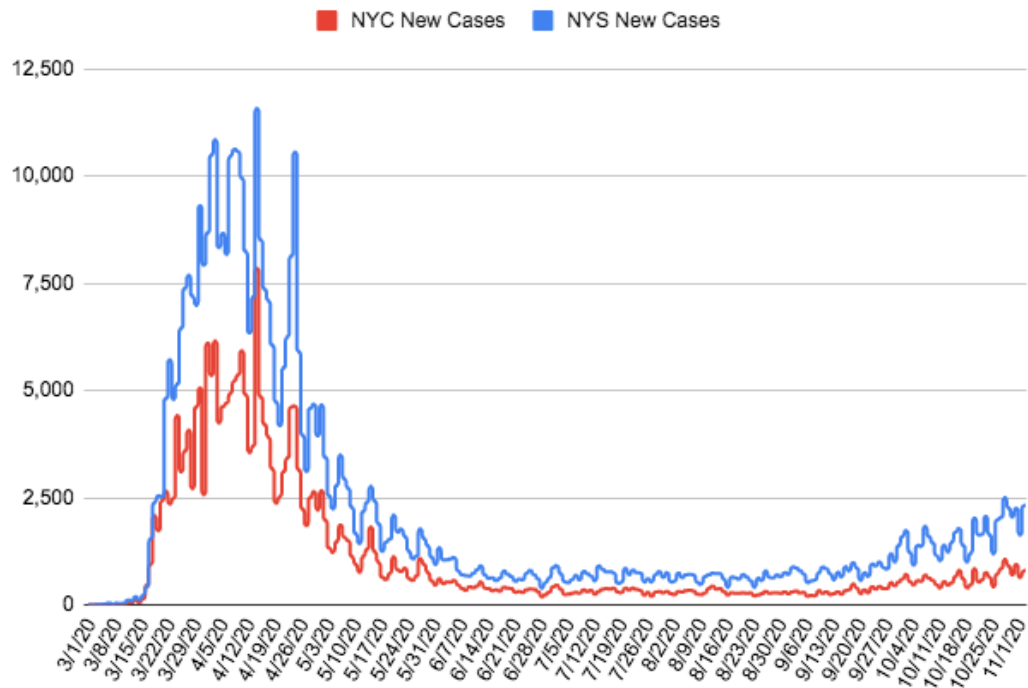
https://profiles.health.ny.gov/hospital/bed_type/Total+Beds



Gross S, Robbins D, Greenwald D, Schnoll-Sussman F, Pochapin M
Preparation In The Big Apple: New York City,
A New Epicenter of the COVID-19 Pandemic,
Am J Gastroenterol, 2020 Jun;115(6):801-804

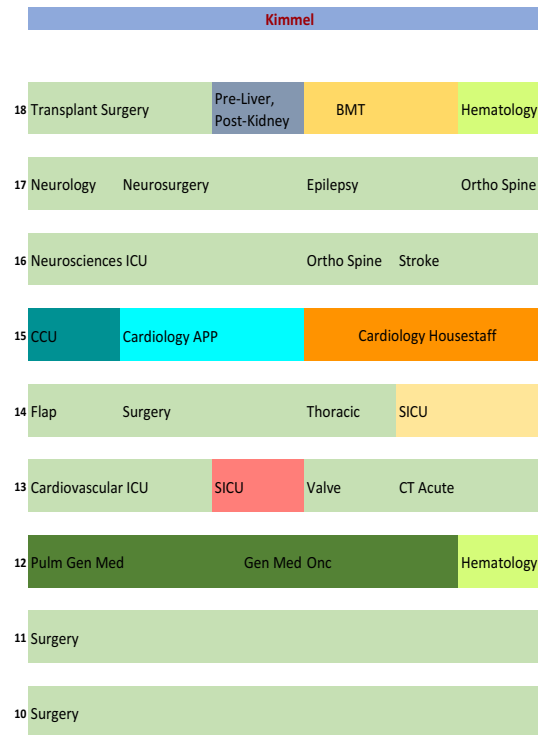
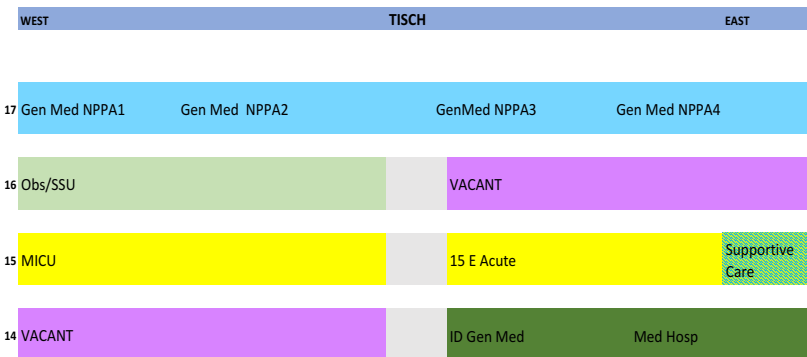
NEW YORK FLATTENED THE CURVE

New Cases in New York



<https://gothamist.com/news/coronavirus-statistics-tracking-epidemic-new-york>

NYU Langone: Pre-COVID Stacking Plan



NYU Langone 4/4/20 Stacking Plan

COVID Army:
 Outpatient
 Medicine
 Surgery,
 Anesthesia,
 Neurology,
 Pediatrics
 Fellows promoted
 to attendings
 Non-Medicine
 APPs
 Medicine / Non-
 Medicine GME
 Early Medical
 School Graduation

WEST		TISCH	EAST	North	Kimmel	SOUTH
17	NPPA1 & 2 (Day: Sup Attg; Night APP)		"Cardiology" attg service (Med GME) Gen Med 1 (Med GME)	18	Med Pulm 10 (Day APP; Night APP)	BMT Hematology
16	NPPA 3 (Day: Sup Attg; Night APP) NPPA 4 (non-Med GME)		Gen Med 2 & 3 (Med GME)	17	Med Pulm 7 & 9 (Day Sup Attg; Night APP)	
15	MICU		15 E Acute (Day APP; Night APP) 2 ICU Airborne Iso	16	Pulm ICU 5 (Day APP; Night APP)	Pulm ICU 3 (Day APP; Night APP)
14	Gen Med 4 & 5 (Day: Sup Attg; Night APP)		"Onc" attending service (Med GME) 15E spill-over	15	Pulm ICU 2 (Day APP; Night APP)	Pulm ICU 1 (Day APP; Night APP)
12	Gen Med 7 (Day: APP Night APP)			14	Pulm ICU 4 (Day APP; Night APP)	Pulm ICU 6 (Day APP; Night APP)
11			Gen Med 8 (Day: APP; Night APP)	13	Pulm ICU 7 (Day APP; Night APP)	Pulm ICU 8 (Day APP; Night APP)
		LOH		12	Pulm ICU 9 (Med GME)	Pulm ICU 10 (Med GME)
10	Med HJD Medicine 1 (Day APP; Night APP)			11	Med Pulm 4 (Day APP; Night APP)	Med Pulm 3 (Day APP; Night APP)
11	Med HJD Medicine 2 (Day APP; Night APP)			10	Med Pulm 5 (Day APP; Night APP)	Med Pulm 6 (Day APP; Night APP)
12	Med HJD Medicine 3 (Day APP; Night APP)			9	Peds ICU	Pulm ICU 9 (Day APP; Night APP) 12 beds
		HCC		8	Peds Acute	Med Pulm 8 (Day Sup Attg; Night APP)
13	Gen Med 6 (Day APP; Night APP)			3	KP Med (Day Sup Attg; Night APP)	
11	Gen Med 9 (Day: APP; Night APP)					

 = COVID Floor

NYU Langone Health Manhattan

Tisch Hospital

Kimmel Pavilion

COVID Medical Beds

COVID ICUs

Dear Colleagues: 3/27/20

Letter To Faculty: 3/27/20

During this unprecedented time in modern medicine, our hospitals are faced with a challenge unlike any in our lifetimes. In response we must change our approach to the clinical care of our patients and the well-being of our colleagues.

We have entered a crucial phase of the pandemic as our hospitals fill with COVID19 positive patients and individuals under investigation. Additional wards have been opened at each of our hospitals to accommodate the surge of patients. This has placed increasing demand on both critical care teams as well as the hospitalists. In addition to retraining and redeploying all those with critical care experience, we are going to need all other physicians to contribute to the care of our hospitalized medical patients.

In order to address this situation, we will need to identify faculty to work in the hospital with house staff and advanced practice providers to provide medical care to our in-patients. We therefore reach out to each of you so that we can identify a pool of physicians who we may need to call upon during this extraordinary period. We are creating a system of specific physician “waves” to be called upon as the need arises. The first wave is currently being filled by all those trained in critical care to help extend the capacity of the ICUs. The next waves of physicians will help care for the non-ICU medical patients in the hospital.

In order to move forward, we ask that you click on the following link to complete a survey to assess training background and experience <https://redcap.nyumc...>

(NOTE: all faculty are required to fill this out). We will schedule a WebEx in the next few days to further discuss this proposal.

If you personally fall into a high-risk category, there are options of service that will not put you in direct patient contact. However, in order to get control of this escalating COVID-19 pandemic in New York City we are going to need all hands on deck.

We are calling on each of you for your help, so that we can meet the challenge that is facing our community with grit, resiliency and pride.

Thank you.

Steven Abramson MD

Chair, Department of Medicine

Mark Pochapin MD

Vice Chair, Clinical Affairs, Department of Medicine



Two Tiers of the COVID Army

- Medical Attending
 - Acting as a hospitalist
 - Interns, resident, APPs
 - Responsible for overall medical management and clinical decisions
 - 12-15 patients
 - Internal medicine trained (often subspecialist)
- Supplemental medical attendings (Super Residents)
 - Part of a team of other supplemental medical attendings and housestaff
 - Overseen by a hospitalist
 - Average of 5 patients
 - Surgeons, Ophthalmologists, Dermatologists, OB/GYN

Draft Card:

Sent to all faculty in the Department of Medicine

- General Medical Floor
 - Lead Attending: Acted as hospitalist in charge of the floor
 - Supplemental Attending: Acted as “super residents” reporting to hospitalist on the floor
- ICU
 - Primary ICU Attending
 - Supplemental ICU attending
- Other

Do you have experience working in Critical Care?

* must provide value

☐ Yes

☐ No

[reset](#)

Are you willing to be trained for Critical Care Medicine?

* must provide value

☐ Yes

☐ No

[reset](#)

Please indicate the following roles in which you would be comfortable performing (select all that apply):

ICU providers must be comfortable managing vented patients and patients in shock.

*Responsibilities might include writing notes, calling consults, admitting and discharging patients, seeing a small number of stable patients, etc. You will have a hospitalist to assist with tasks and with Inpatient Epic navigation/documentation.

**Responsibilities might include writing notes, calling consults, etc. You will not be responsible for ventilation monitoring and you will always have a hospitalist of ICU attending to assist with tasks and with Inpatient Epic navigation/documentation. *Must be comfortable working with vented patients and patients in shock.*

* must provide value

☐ Lead Attending of a General Medicine floor

☐ Supplemental General Medicine Attending *

☐ Primary ICU Attending

☐ Supplemental ICU Attending **

☐ Other

Are you willing to work nights?

* must provide value

☐ Yes

☐ No

[reset](#)

Waves approach

- Waves 1-3: ICU Coverage
- Wave 4: Internal Medicine, APPs, Fellows promoted to attendings, and other Internal Medicine specialists
- Wave 5: Non-Internal Medicine Specialists and APPs including
 - Surgeons of all subspecialties
 - Ophthalmologists
 - Dermatologists
 - OB/GYN
 - Pediatrics
 - Neurology
 - Radiology
- Wave 6: Early Medical School Graduation
- Other Help: Physicians/Nurses/PAs from outside New York City

Preparation in the Big Apple: New York City, a New Epicenter of the COVID-19 Pandemic

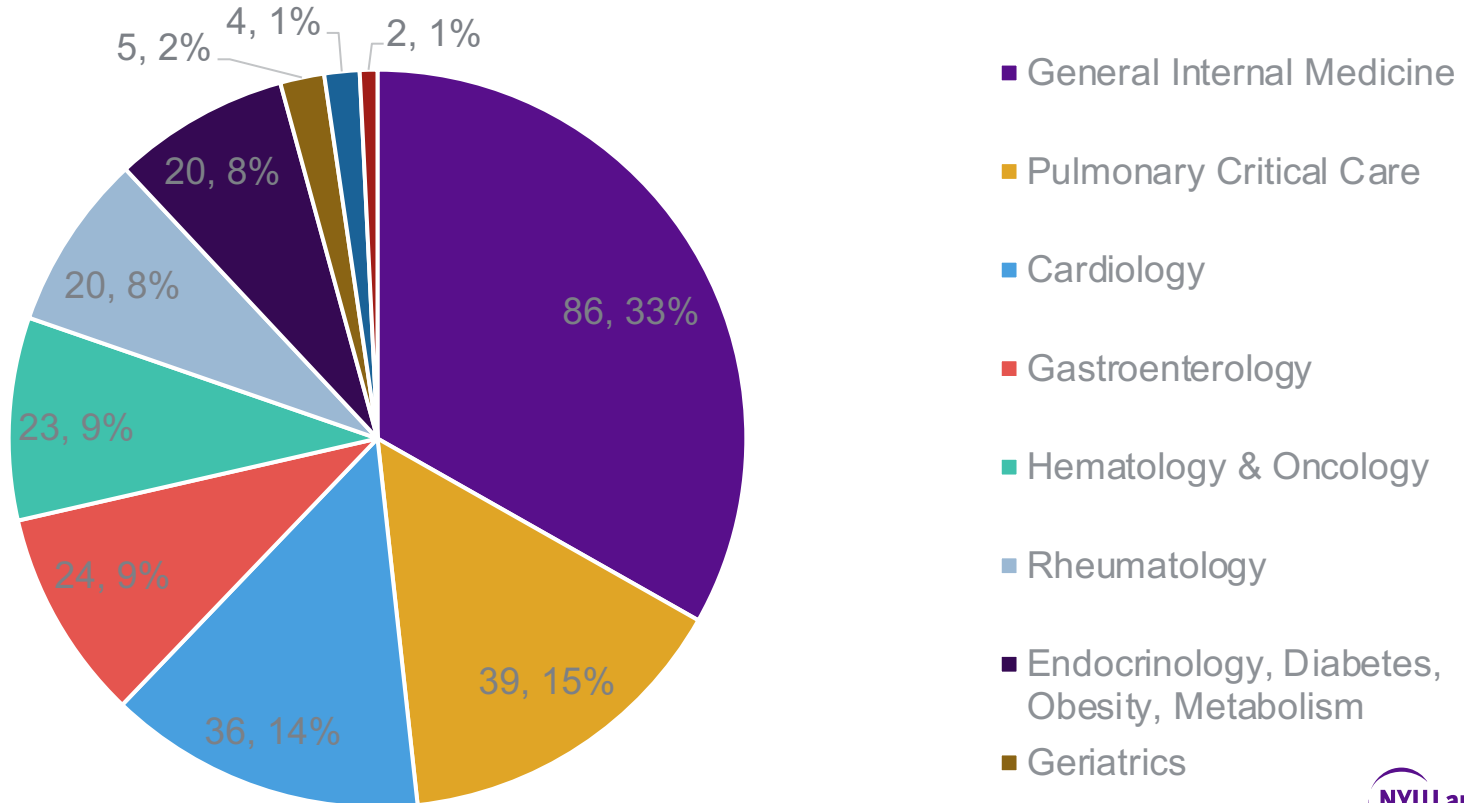
Seth A. Gross, MD¹, David H. Robbins, MD, MSc², David A. Greenwald, MD³, Felice H. Schnoll-Sussman, MD⁴ and Mark B. Pochapin, MD¹

Am J Gastroenterol 2020;115:801–804. <https://doi.org/10.14309/ajg.0000000000000636>; published online May 13, 2020

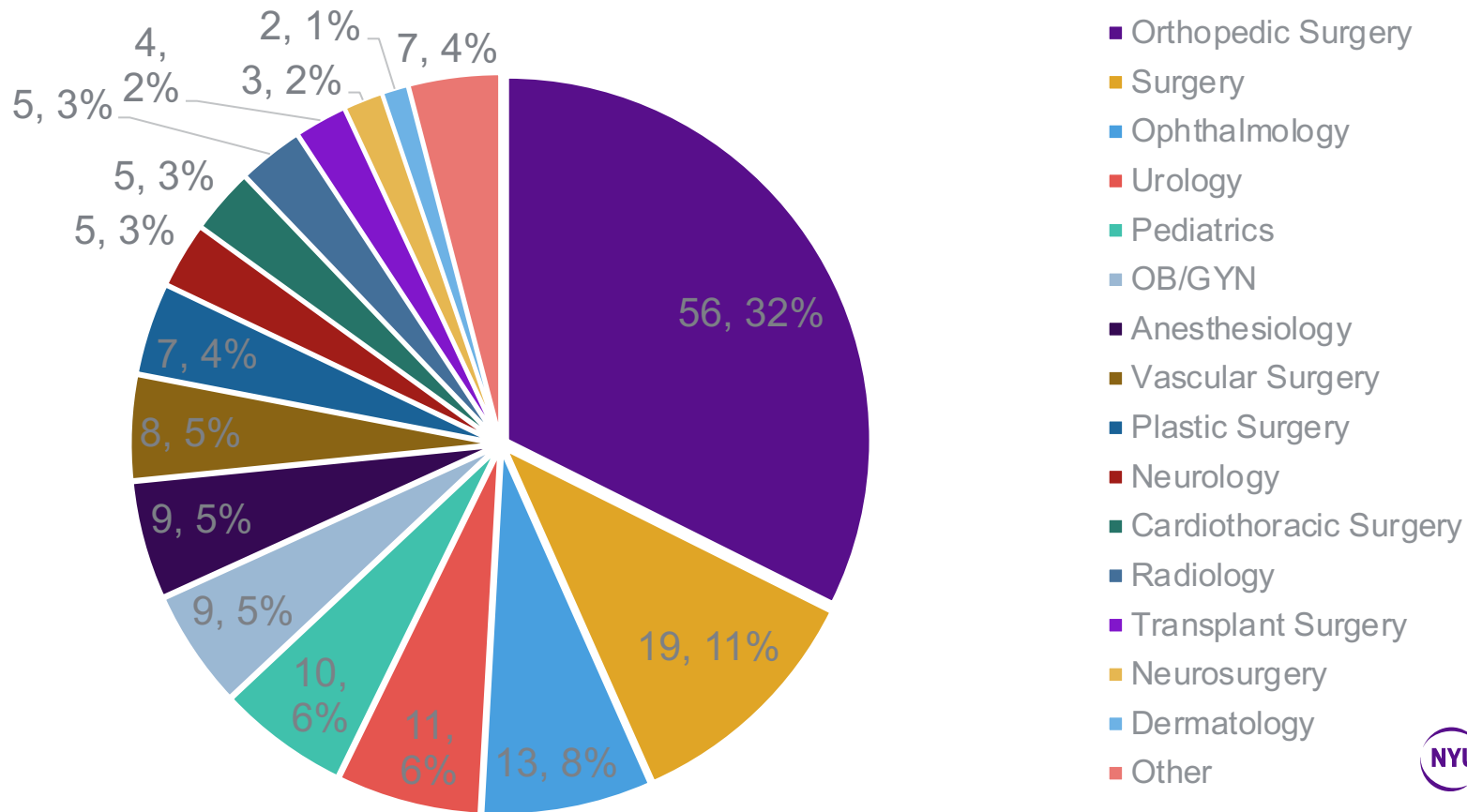
Table 2. Department of medicine redeployment model

Wave 1 ICU	Critical care-trained physicians currently not practicing in ICUs and nonmedical ICU intensivists (pulmonologists trained in critical care, anesthesia trained in critical care, cardiologists who cover the CCU, and surgeons who cover the surgical ICU)
Wave 2 ICU	Young physicians and volunteer senior fellows who receive additional training in ICU procedures and ventilator management. These physicians are board-certified in internal medicine and just a few years out from their ICU experience as residents.
Wave 3 ICU	Hospitalists who received additional ICU training
Wave 4 Medical floors	Internists and subspecialists (gastroenterologists) who will act as medical attendings to backfill the vacant hospitalist positions.
CCU, cardiac care unit; ICU, intensive care unit.	

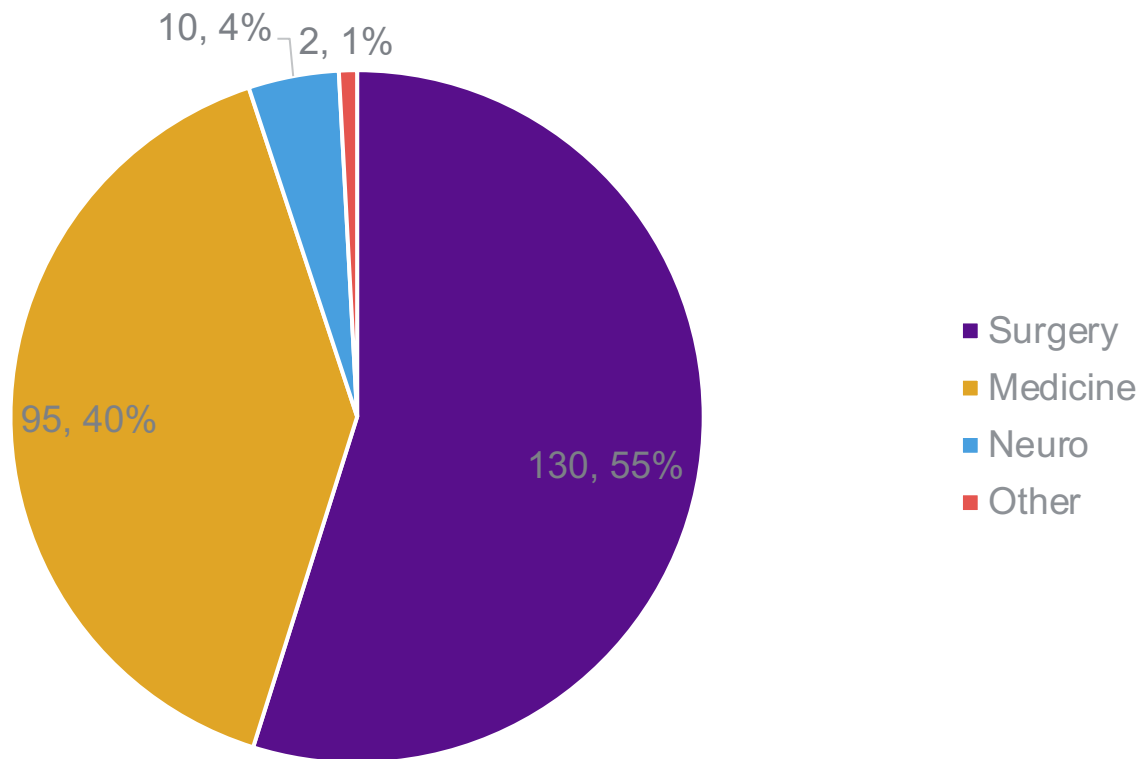
The COVID Army Composition: Medicine Attendings = 259



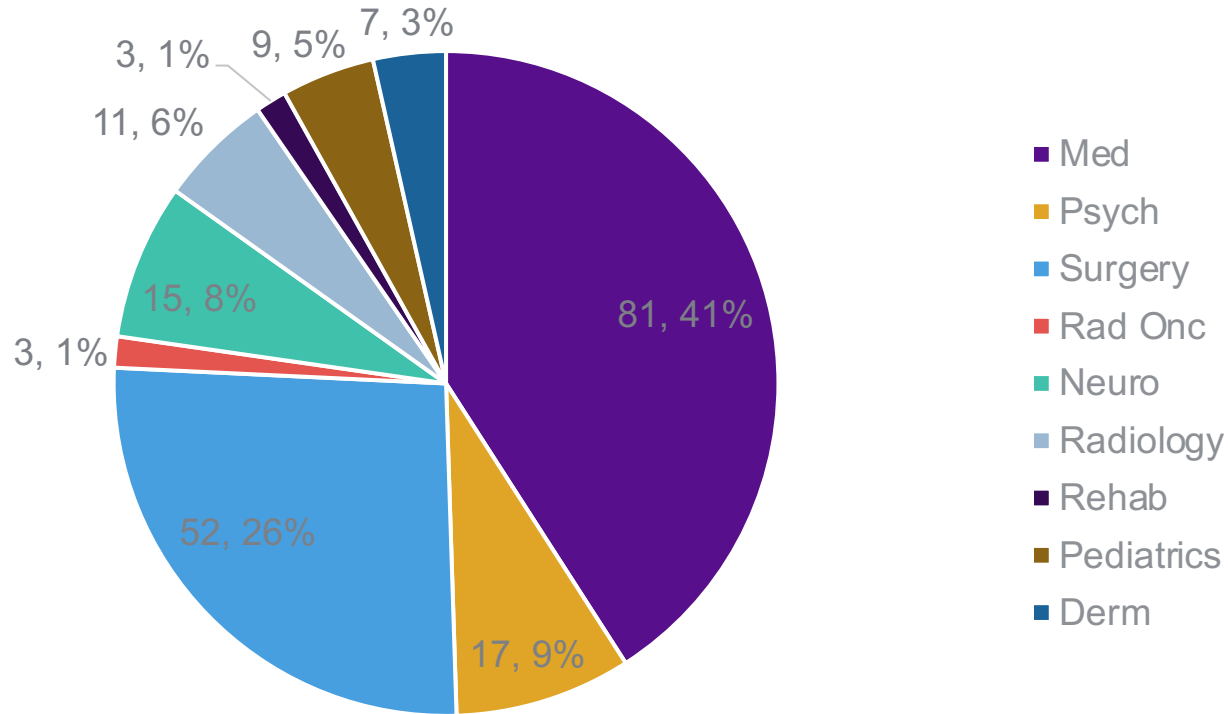
The COVID Army Composition: Non-Medicine Attendings = 173



The COVID Army Composition: Advanced Practice Providers (APPs) = 238



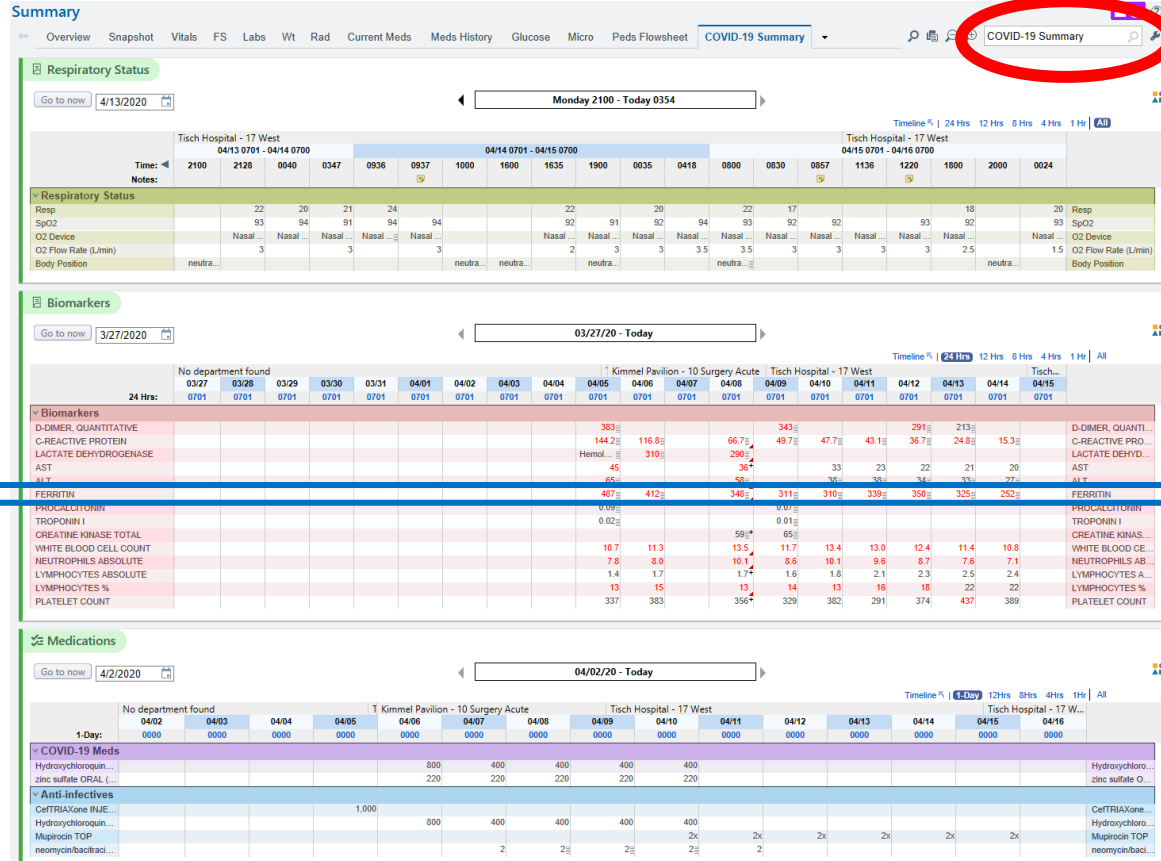
The COVID Army Composition: Residents = 198



Surgical and other specialties



EMR COVID Dashboard



O2 requirements

Inflammatory Markers

COVID directed therapy

▼ Respiratory Status

Resp

SpO2

O2 Device

O2 Flow Rate (L/min)

Body Position

▼ Biomarkers

D-DIMER, QUANTITATIVE

C-REACTIVE PROTEIN

LACTATE DEHYDROGENASE

AST

ALT

FERRITIN

PROCALCITONIN

TROPONIN I

CREATINE KINASE TOTAL

WHITE BLOOD CELL COUNT

NEUTROPHILS ABSOLUTE

LYMPHOCYTES ABSOLUTE

LYMPHOCYTES %

PLATELET COUNT

▼ COVID-19 Meds

Hydroxychloroquin...

zinc sulfate ORAL (...)

▼ Anti-infectives

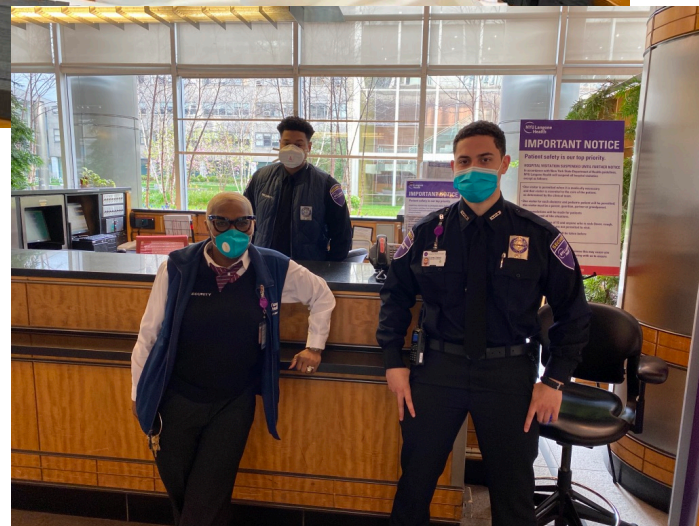
CefTRIAxone INJE...

Hydroxychloroquin...

Mupirocin TOP

neomycin/bacitraci...

COVID Army: Unsung Heroes





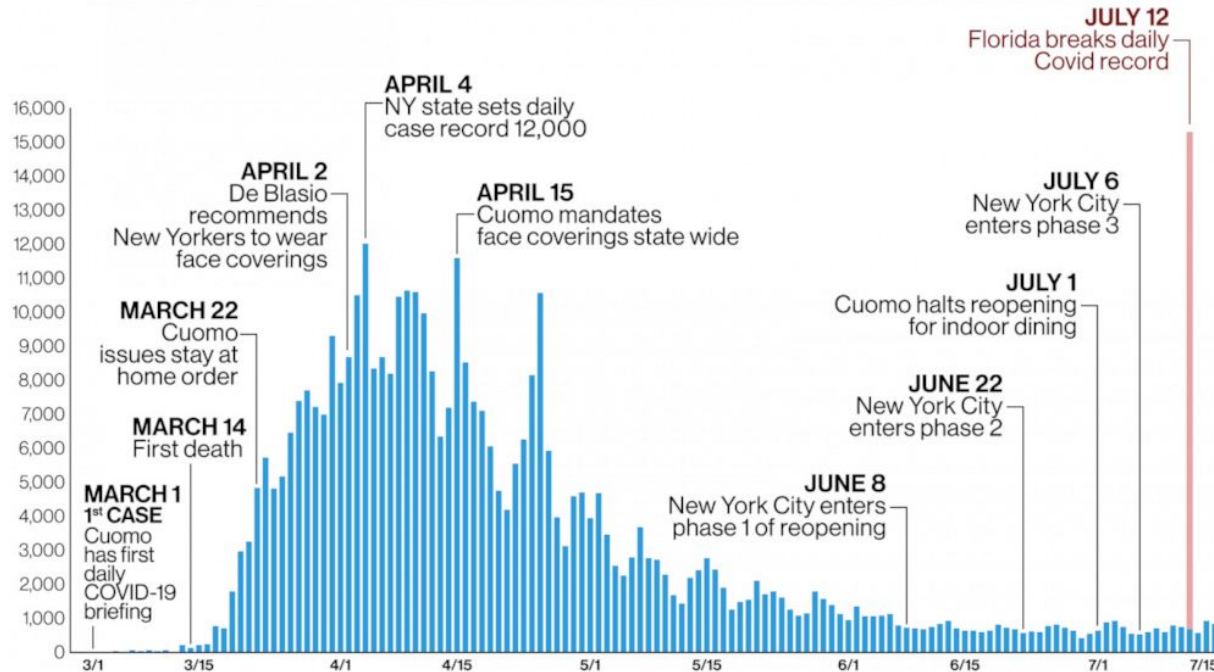
My job up until yesterday was
actually getting people together,

COVID Army

- Strong leadership: Clear steps to take
- Central coordination with ability to grow and adapt
- Meticulous management of spread sheets of all faculty and their locations
- Daily huddles among COVID Army leadership among all hospitals.
- Preparatory email explaining all the necessary resources to prepare
- Pool of extras reservists ready to go at a moments notice as faculty themselves were getting exposed or becoming COVID positive
- Need to address and recognize Anxiety, Fear and Stress
 - Adequate PPE
 - Sufficient training and supervision
 - Mental health professionals and resources



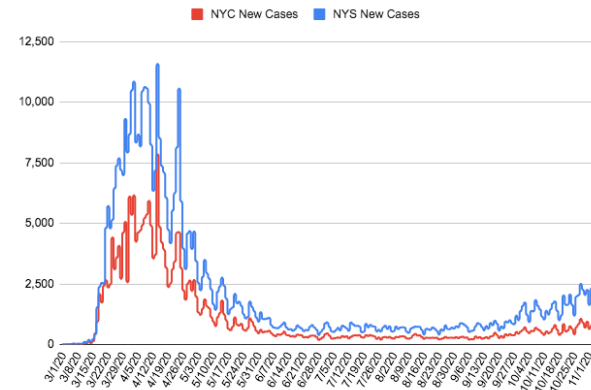
New York's Covid Timeline



SOURCE: THE COVID TRACKING PROJECT



New Cases in New York



<https://gothamist.com/news/coronavirus-statistics-tracking-epidemic-new-york>

The COVID curve in NY remains relatively flat

- **Masks** are required by executive order
- **Distancing:** No indoor restaurants or bars
- **Testing:** Availability with rapid result turn around and quarantine and contact testing
- **Strong leadership** with frequent communication



“New Yorkers saw the devil in its face”

Tony Fauci

Leadership Principles

Crisis

危機

Danger

Opportunity

Critically Important Leadership Principles for Crisis Management

- Authenticity
- Vulnerability
- Transparency what you know and don't know
- Communication:
 - Frequent
 - Clear and definitive
 - Tone: Serious but optimistic
- Focus on success and recognize outstanding efforts
- Look at everything you are doing, and then ask how you can do better
- Learn from others who have gone through this before (Wuhan, Italy, NYC)

Professional Societies

- GI societies were unified for joint statements with clear recommendations
- PPE and Testing Recommendations



ACG Strategies:

- Weekly Zoom meetings with ACG Board of Trustees
- Rapid review of literature and publication
- Frequent updates and presidential messages to members
- Engage special task forces and committees
- Social media presence
- Special Webinars
- Virtual Grand Rounds



On March 15th, the four U.S. Based Gastroenterology Societies published a joint statement with recommendations for Community Gastroenterologists and Gastroenterology Care Providers.

The full document and other resources can be found at gi.org/COVID19

Member Alert

from the following organizations:



JOINT GI SOCIETY MESSAGE: COVID-19 Clinical Insights for Our Community of Gastroenterologists and Gastroenterology Care Providers

The situation involving the COVID-19 pandemic continues to evolve. There is recent evidence suggesting the potential for coronavirus transmission through droplets and perhaps fecal shedding ^{1, 2}, posing potential risks during endoscopy and colonoscopy to other patients, endoscopy personnel, and ourselves.

We provide below important information as well as recommendations to consider in your institutions and practices that provide endoscopy and outpatient GI services:



Assessing Impact

90% ↓
drop in colonoscopies
and biopsies by
mid-April compared
to same period in 2019

18,800
estimated
missed or delayed
diagnoses of CRC
from early March
through early June

1.7M
missed
colonoscopies

4,500+
excess deaths
from CRC over
next decade

<https://nccrt.org/resource/a-playbook-for-reigniting-colorectal-cancer-screening-as-communities-respond-to-the-covid-19-pandemic/>



COVID-19: A Roadmap to Safely Resuming Endoscopy

An update on the latest developments and practical tips for your endoscopy center



Costas H. Kefalas, MD, MMM, FACG



Neil H. Stollman, MD, FACG



Mark B. Pochapin, MD, FACG



Sapna V. Thomas, MD,
FACG



Vonda G. Reeves, MD, MBA, FACG



Harish K. Gagneja, MD, FACG



Michael S. Morelli, MD, CPE, FACG



Louis J. Wilson, MD, FACG



Melissa Latorre, MD, MS



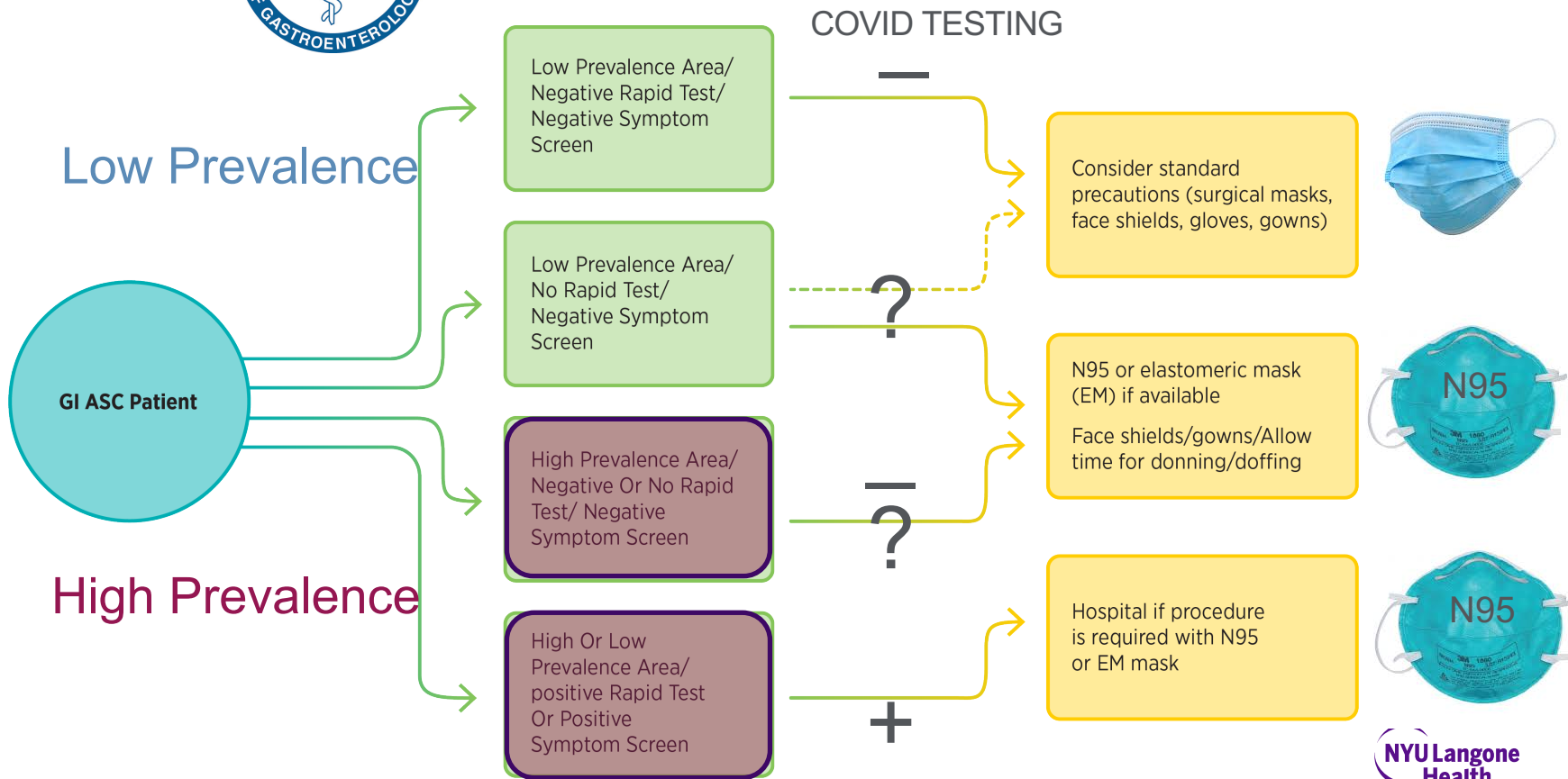
Whitfield Knapple, MD,
FACG



Jeffrey L. Nestler, MD,
FACG



PPE DECISION TREE



Resiliency is Critical

It makes us stronger

Resiliency

In many ways, as it turned out, my entire life up to that moment has been a preparation to handle that particular moment.

I had to force myself to use my training and – and force calm on the situation.

- Captain Chesley “Sully” Sullenberger



“Miracles occur when everybody performs at their absolute best”

- Phil Katz, Past ACG President

COVID-19 War: We are the soldiers in this war

- COVID Army, Reservists, Recruitment, Deployment..
- It is like real battle with 3 additional elements:
 - 1. We are fighting this battle on our home turf
 - 2. If we get hit by a bullet, we may not know about it for a week
 - 3. We may bring that bullet home to our family

What must we address?

- Our feelings:
 - Stress, anxiety, worries and concerns
 - It is not a weakness to look for strategies to help address stress.
 - On the contrary: It is a sign of resiliency!
- Processing our feelings now will avoid complications later such as PTSD
- The military has a system of “Battle Buddies”
 - Create a buddy system to watch each other, check in and
 - Drag somebody out when they are going down the rabbit hole of increasing work and decreasing sleep
 - Formula for burnout, depression and suicidal ideation

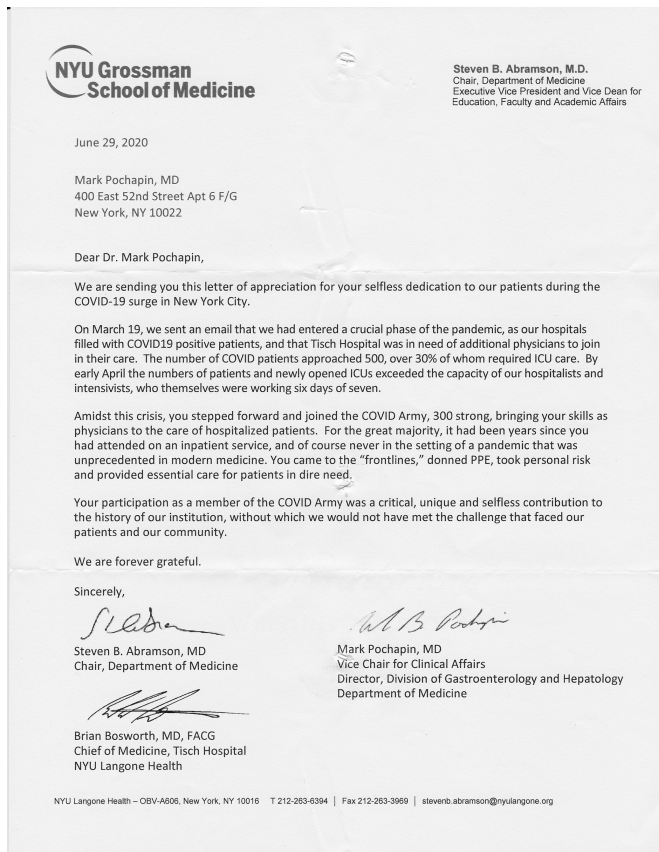
Do not be afraid to ask for help!



Gratitude is strength

And an antidote

COVID Army Thank You Letter and Pin



*The future ain't what it used to
be*

– Yogi Berra

The COVID Army Future

- We have contingency plans for all hospitals
 - Floors that can be converted to COVID units
 - ICU doctors who can staff expanded ICUS
 - Medical doctors who can staff COVID medical units
- We are watching our hospital and ICU admissions: They are slowly increasing
- We are closely following the rate of COVID positivity

COVID Front Lines Summary

- Strong leadership = Authenticity
- Frequent communication is essential
- Create a COVID Army contingency plan and reservists
- Create plans to accommodate a COVID surge: Can use a waves approach
- Recognize and address fear, anxiety and stress and have mental health specialists standing by. Create a system of "Battle Buddies"
- Until a vaccine arrives, we must flatten the curve with masks, distancing, washing hands, staying outdoors and contact tracing/testing
- Be authentic and honest, but stay positive
- Look towards the professional societies for guidance: PPE and testing
- People are more resilient than you think
- Gratitude is strength

Even Superman
cannot do what
healthcare
professionals do!

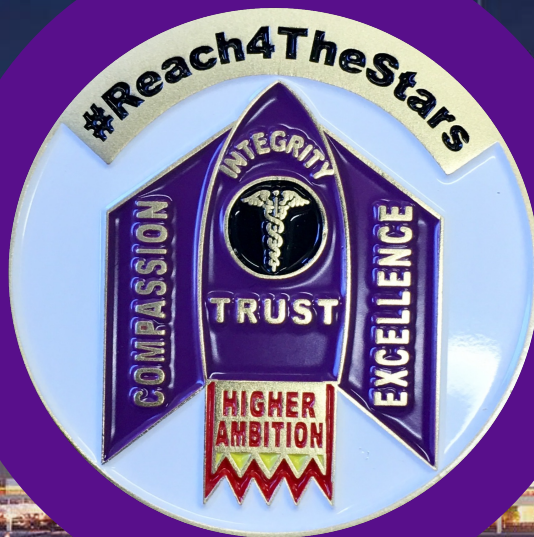


The Artist: Josef Lee

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THANK YOU

Mark.Pochapin@NYULangone.org

